**SPECIFICATIONS**

### performance level for access control

This product complies with the following UL294 Access Control Performance Levels:

- **Destructive Attack Level 1**
- **Line Security Level 1**
- **Endurance Level 4 Prox**
- **Standby Power Level 1**

See the UL Listed access control unit controller installation instructions for reader compatibility.

### environmental

- **Operating Temperature**: -31°F to + 151°F (-35°C to +66°C)
- **Humidity**: 86 ±3°F (85 ±5% at 30 ±2°C)
- **Ingress Protection**: IP65 (not evaluated by UL)
- **Positioning**: Suitable for OUTDOOR use.

### electrical

- **Power supply**: Power is to be provided by a UL294 Listed, low-voltage Class 2 power limited supply or control panel, capable of 4 hours standby.
- **Voltage**: +10Vdc to +16Vdc
- **Current**

<table>
<thead>
<tr>
<th>Model</th>
<th>Part No.</th>
<th>Idle and Peak current at 12Vdc</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M Inline</td>
<td>3ML-R11030</td>
<td>Average 15mA / Peak 35mA</td>
</tr>
<tr>
<td>3M Mullion</td>
<td>3ML-R11330</td>
<td>Average 41mA / Peak 82mA</td>
</tr>
<tr>
<td>3M S-Gang</td>
<td>3ML-R11320</td>
<td>Average 43mA / Peak 82mA</td>
</tr>
<tr>
<td>3M S-Gang Keypad</td>
<td>3ML-R11325</td>
<td>Average 62mA / Peak 100mA</td>
</tr>
</tbody>
</table>

- **Data Voltage**: Rest >4Vdc / Active >1Vdc
- **Data Output**: Wiegand, Clock & Data, Custom Outputs
- **Indication**: 1 RGB LED (+ RGB LED illuminated keypad to 3MIL-R11325)
- **Sounder**: Integrated speaker

### polymeric materials

- **Potting compound**: UL R/C (QMFZ2)
- **Mouldings**: UL746C

### wiring

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction.

Recommended cable:
- Belden 953x (or equivalent UL listed) for Wiegand.
- Belden 9502 (or equivalent UL listed) for RS485.

All cable and wiring must be Listed and suitable for use.

- **Cable length**: Up to 492 feet (150 m) from controller.
- **Minimum recommended wire size**: Not less than 24 AWG.

### reader connections

These connections are common to all readers in the BD series.

| 1 | 0V Supply voltage ground |
| 2 | +Vdc Supply voltage (+10Vdc to +16Vdc) |
| 3 | DATA1/CLK Wiegand or Clock/Data output |
| 4 | DATA0/DAT Wiegand or Clock/Data output |
| 5 | GREEN Green LED control input |
| 6 | RED Red LED control input |
| 7 | BUZZER Buzzer control input |
| 8 | TMPR/CP Tamper or Card Present output |
| 9 | RS485+ RS485 Bus |
| 10| RS485 Bus |

### dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>Part No.</th>
<th>Size - Inches ( millimetres )</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M Inline</td>
<td>3ML-R11030</td>
<td>3.8 x 2.3 x 0.8 in ( 96 x 52 x 21 mm )</td>
</tr>
<tr>
<td>3M Mullion</td>
<td>3ML-R11330</td>
<td>3.8 x 2.1 x 0.8 in ( 96 x 52 x 21 mm )</td>
</tr>
<tr>
<td>3M S-Gang</td>
<td>3ML-R11320</td>
<td>4.7 x 3.0 x 0.8 in ( 120 x 76 x 21 mm )</td>
</tr>
<tr>
<td>3M S-Gang Keypad</td>
<td>3ML-R11325</td>
<td>4.7 x 3.0 x 0.8 in ( 120 x 76 x 21 mm )</td>
</tr>
</tbody>
</table>

### 3M S-Gang Keypad

- **3MIL-R11325**
  - **Connectors**:
    - 125kHz
    - 13.56MHz
    - Supra® BT LE (2.4GHz)

### 3M S-Gang

- **3MIL-R11320**
  - **Connectors**:
    - 125kHz
    - 13.56MHz
    - Supra® BT LE (2.4GHz)

### 3M Mullion

- **3MIL-R11330**
  - **Connectors**:
    - 125kHz
    - 13.56MHz
    - Supra® BT LE (2.4GHz)

### 3M Inline

- **3MIL-R11030**
  - **Connectors**:
    - 125kHz
    - Supra® BT LE (2.4GHz)

### Installation Guide

Mounting this reader on (or near) metal may impair the read range of the unit.

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Specifications subject to change without notice.

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These notes are provided as a general guidance for mounting, fixing and connecting 3millID - 3M series RFID readers. Please consult your installer and the manufacturer’s details of your control panel, when configuring your access security system.

If fitted, remove reader module securing screw.

Pull bottom edge of reader module away from the backplate, and lift up.

Mount the reader backplate to a flat surface using suitable hardware having a diameter no greater than 0.15 in (4mm).

Once the backplate has been mounted, make wire connections to the reader module in accordance with the screw terminal connections shown below, and your control panel requirements. Ensure the cable does not impair or prevent the reader module being secured.

Position the reader module, ensuring the top-edge fixing lugs engage correctly with the recesses located at the top of the backplate.

Swing the bottom edge of the module down and forward until you feel the unit click shut.

Secure the reader module to the backplate using the M3x100mm screw as supplied.

If required, you may opt to use security screw.

These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Together with information provided by suppliers and subcontractors, these devices comply with the requirements and relevant provisions of:

EU Directive 2014/65/EC.

These RFID proximity readers comply with the essential requirements and relevant provisions of:

EU Directive 2014/53/EC

This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, it is your responsibility to dispose of your waste equipment by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment. By separating and recycling your waste equipment at the time of disposal you will help to conserve natural resources and ensure that the equipment is recycled in a manner that protects human health and the environment.

EU Directive 2012/19/EU

These devices contain: FCC ID: TCZ-10103751G1

Applicable to 3M Inline add-on reader only. The following is a diagrammatic representation of the wiring configuration providing a Bluetooth capability to most existing installations. Please consult your installer and the manufacturer’s details of your existing control panel and access control reader.

(This configuration not evaluated by UL)

<table>
<thead>
<tr>
<th>pin</th>
<th>line IN</th>
<th>line OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0V</td>
<td>0V</td>
</tr>
<tr>
<td>2</td>
<td>+Vdc (+12Vdc)</td>
<td>+Vdc (+12Vdc)</td>
</tr>
<tr>
<td>3</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>7</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>RS485 -</td>
<td>RS485 -</td>
</tr>
<tr>
<td>10</td>
<td>RS485 +</td>
<td>RS485 +</td>
</tr>
</tbody>
</table>

security access
CONTROL PANEL

Existing ACCESS CONTROL READER

line in from control panel

line out from 3M Inline module

line IN

line OUT